

II. Rejection of claims 1-11 under 35 U.S.C. § 112, second paragraph, as being indefinite

The Examiner rejects claims 1-11 under 35 U.S.C. § 112, second paragraph, as being indefinite. With respect to the term "thermoset" applicant submits that this term is a well recognized term of art. See, e.g., U.S. Patent No. 5,399,427 at col. 1, line 10. A copy of this U.S. patent is enclosed as Exhibit A.

As set forth on page 9, first paragraph, the phrase "residual shrinkage in the range of from 5 to 20 % at 80°C" defines the total shrinkage that the casing will undergo after being thermoset, regardless of whether it is before, during or after stuffing. After stuffing the sausage is frequently scalded or boiled and thereafter cooled down. In the course of this processing, the sausage expands first and then shrinks again. The casing must be able to follow this motion, otherwise it would form unsightly wrinkles. Further, during storage the sausages normally show some water loss, which slightly reduces their size. Again, the casing must be able to compensate for this and thereby have a tight fit to the meat stuffing. See the present specification in the paragraph bridging pages 1 and 2. The casings therefore need to have a residual shrink after being thermoset.

In view of the foregoing, applicant submits these terms are clear and definite. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

III. Rejection of claims 1-11 under 35 U.S.C. § 103(a) as being unpatentable over Schumacher in view of Chacko et al. (US 4,486,507) and Vicik (U.S. 5,698,279)

The Examiner applies Schumacher and Chacko et al. in the manner as set forth in the previous Office Action. Vicik is applied as teaching the claimed shrinkage value. For the same reasons set out in the previous Reply, and in addition, for the reasons set forth below, applicant submits that the prior art alone or in combination fails to teach or suggest the claimed invention.

Schumacher in col. 13, lines 8 - 45, does not disclose food casings such as sausage skins; instead, Schumacher teaches a secondary packaging for a group of - otherwise finished - sausages. According to the example provided in Schumacher, five sausages are placed, parallel to each other in the longitudinal direction, into a molded film form ("subfilm") which is in turn heat-sealed with a flat film. Subsequently, the secondary packaging is exposed to hot air of approximately 140°C, which causes the film packaging to shrink and to wrap itself tightly and without folds around the packaged material, i.e. the group of sausages (see column 8, lines 40/41). This secondary flat film is not a food casing as claimed.

Also, as noted in the previous Reply, Schumacher teaches "shrinkable" films. For example, see Schumacher at column 1, lines 7-9 ("invention relates to a transparent, shrinkable film..."); column 2, lines 45 to 50 ("I have discovered a shrinkable polyamide film possessing all of the following desired properties. 1. Good shrinkability at relatively low temperatures; 2. Stretchability at relatively low temperatures; 3. Stretchability with not too high an expenditure of force; ..."); and claim 1 ("[a] transparent, shrinkable film ..."). It is clear from a reading of Schumacher that shrinkability is of primary importance.

Chacko et al. teach polyamide compositions which can be employed to produce films, both with and without reinforcement (see col. 1, lines 12-16). The polyamide composition is produced by melt-blending 70 to 98 % by weight of a polyamide and 2 to 30 % by weight of a block copolymer of a polyamide and a polyether, also designated as poly(amide-ether) block copolymer (col. 2, lines 15-40). The copolymer may be Pebax 5533 (see col. 10, lines 50/51). Like Schumacher, Chacko et al. do not teach or suggest employing the polyamide film as a food casing, such as a sausage casing. The only disclosure regarding suitability in the food context is found in col. 1, lines 24/25, where Chacko et al. broadly state that polyamides have been used widely in a film form for packaging foods.

As also pointed out in the previous Reply, Chacko is silent regarding the shrinkability of the film. However, Chacko does teach that the film must permit stretching in order to conform to a mold. See, e.g., Chacko at column 5, lines 31 and 32. In view of the fact that Schumacher at column 8, lines 42 to 45, teaches that good stretching is required for shrinkability, it would naturally follow that Chacko will also be a shrinkable film.

Thus, the combination of Schumacher with Chacko et al. do not render the claimed invention prima facie obvious because the combination of references fail to teach or suggest: (1) a food casing; and (2) a residual shrinkage as claimed.

The Examiner applies Vicik as teaching in col. 2, lines 25-35, a so-called "after-shrink process" in which the cooked and cooled sausage is heated to about 80°C or higher for a few seconds in a hot water bath or by hot air treatment. The Examiner refers to Vicik as also teaching at column 7, lines 10-15 as having a shrinkage of at least 10%. Applicant respectfully submits that Vicik fails to overcome the deficiencies of the prior art noted above.

As the Examiner recognizes, Vicik teaches a film that is heat shrinkable (column 6, lines 57-59) and that shrinkage can be controlled as desired (column 6, line 65 et seq.) such as by annealing (column 19, lines 31-35). Even if the teachings of the references are combined, there would have been no motivation to select the claimed shrinkage of 5 to 20 % at 80°C. At most, Vicik teaches that shrinkage can be controlled as desired. However, in view of the teachings of Schumacher and Chacko et al. particularly Schumacher, one skilled in the art would have been motivated to select a greater shrinkage because the films of Chacko and Schumacher are required to have good shrinkability for shrink wrapping applications. That is, the clear teachings of the combined prior art, when viewed as a whole, is to provide a high shrinkage film (i.e., a film having a shrinkage above the claimed range). Nothing in Vicik teaches otherwise, because Vicik simply teaches good shrinkage and that shrinkage can be controlled as desired. Accordingly, the references fail to teach or suggest the claimed invention and reconsideration and withdrawal of the rejection are respectfully requested.

In view of the foregoing, it is respectfully urged that the present claims are in condition for allowance. An early notice to this effect is earnestly solicited. Should there be any questions, Examiner Hon is courteously invited to contact the undersigned at the number shown below.

Respectfully submitted,

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By



FOLEY & LARDNER
Washington Harbour
3000 K Street, N.W., Suite 500
Washington, D.C. 20007-5109
Telephone: (202) 672-5300
Facsimile: (202) 672-5399

Todd J. Burns
Reg. No.: 38,011

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